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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Robert J. Lee

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STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SAMUEL, DEWANDA A

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

06/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/689,935	Applicant(s) LEE, ROBERT J.	
	Examiner DeWanda Samuel	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to the communication received on 04/14/2008.
2. **Claims 1-20** are pending.

Response to Arguments

3. Applicant's arguments with respect to claim 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 12,13 and 16-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Besser (US Patent 6,847,635) in view of Eng (US patent 7,194,009).

With regard to claim 12, Besser discloses having a *system for supporting serial packet synchronization, comprising: a media access controller (CM1 column 3 line 57) that asserts a packet sync vector (time slot 21 column 3 line 58) in response to receiving a grant;* (column 3 line 57). It is known in the art the cable modem comprises a MAC control device.

Besser does not disclose having a *serial packet sync encoder that encodes a serial packet sync datastream*; Eng discloses having a upstream processing unit 506 (“packet sync encoder”) receiving packets (column 6 line 40-67).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing a upstream processing unit 506 (“packet sync encoder”) receiving packets as taught by Eng unifying a full-service communication system whereby simplifying the equipment by reducing the cost for equipment .

and a serial packet sync receiver that receives said serial packet sync datastream on a single pin. Eng discloses having a Full -Service cable modem comprised of a DPC1 downstream receiver 420 (“packet sync receiver”) receiving RF

signal 412 on a single link ... the RF signal is a MPEG-2 transport stream TS1 ("packet sync datastream" column 5 line 52-67).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing a upstream processing unit 506 ("packet sync encoder") receiving packets as taught by Eng unifying a full-service communication system whereby simplifying the equipment by reducing the cost for equipment .

With regard to claim 13, in combination Besser and Eng teaches the system recited in claim 12. *wherein said serial packet sync encoder comprises a serial packet sync transmitter that transmits said serial packet sync datastream on a single pin.* Eng discloses having a upstream processing unit 506 ("packet sync encoder") receiving packets (column 6 line 40-67). Eng further discloses there are two up stream burst transmitters ("packet sync transmitter" column 6 line 43-67) transmitting RF signal 480 on a single link (fig. 2 and column 6 line 56).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing a upstream processing unit 506 ("packet sync encoder") receiving packets as taught by Eng unifying a full-service communication system whereby simplifying the equipment by reducing the cost for equipment .

With regard to claim 16, in combination Bessr and teaches the system recited in claim 12. *wherein said serial packet sync datastream is comprised of a non-unique bit sequence.* Eng discloses having a MPEG-2 transport packet ("packet sync datastream") comprised of synchronization word ("sync vector") and a 13-bit packet identifier or PID ("non-unique bit sequence" column 15 line 9-15 and fig. 11).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing synchronization word ("sync vector") and a 13-bit packet identifier or PID ("non-unique bit sequence") as taught by Eng providing a network that is more synchronized.

With regard to claim 17, in combination Besser and teaches the system recited in claim 12. *wherein after receiving a grant, said serial packet sync datastream is comprised of said packet sync vector and said preamble.* Bessr discloses CM (cable modem) receiving grants (column 6 line 3-67)..receiving data packets ('serial datastream",column 4 line 60-67). However, Besser does not explicitly discloses said serial packet sync datastream is comprised of said packet sync vector and said preamble. Eng discloses having a MPEG-2 transport packet ("packet sync datastream") comprised of synchronization word ("sync vector") and a 13-bit packet identifier or PID ("preamble" column 15 line 9-15 and fig. 11)

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to CM (cable modem) receiving grants and data packets as taught Besser comprised of synchronization word ("sync vector") and a 13-bit packet identifier or PID ("preamble") as taught by Eng providing a network that is more synchronized.

With regard to claim 18, in combination Besser and teaches the system recited in claim 17. *wherein said preamble is a preselected unique bit sequence*. Eng discloses having a MPEG-2 transport packet ("packet sync datastream") comprised of synchronization word ("sync vector") and a 13-bit packet identifier or PID ("preamble unique bit identifier " column 15 line 9-15 and fig. 11).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing synchronization word ("sync vector") and a 13-bit packet identifier or PID ("non-unique bit sequence") as taught by Eng providing a network that is more synchronized.

With regard to claim 19, Besser discloses having a *system for transmitting indication of an event, comprising: a media access controller*(CM1 column 3 line 57) *that asserts a packet sync vector*(time slot 21 column 3 line 58) *in response to*

receiving a grant; (column 3 line 57). It is known in the art the cable modem comprises a MAC control device.

and a serial packet sync encoder that encodes a serial packet sync datastream, said serial packet sync datastream comprised of said packet sync vector and a preamble, Eng discloses having a MPEG-2 transport packet ("packet sync datastream") comprised of synchronization word ("sync vector") and a 13-bit packet identifier or PID ("preamble" column 15 line 9-15 and fig. 11)

wherein said serial packet sync encoder comprises a serial packet sync transmitter that transmits said serial packet sync datastream on a single pin as an indication that said grant has arrived. Eng discloses having a transmitters 194 ("transmitter") transmitting packets (column 5 line 37-67).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing a upstream processing unit 506 ("packet sync encoder") receiving packets as taught by Eng unifying a full-service communication system whereby simplifying the equipment by reducing the cost for equipment .

7. Claim 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Besser (US Patent 6,847,635) and Eng (US Patent 7,194,009) as applied to claim 12 above, and further in view of Bernath et al. (US Patent 6,629,288).

With regard to claim 14, in combination Besser and Eng teaches the system recited in claim 12. *wherein said serial packet sync receiver comprises: a preamble comparator that compares said received serial packet sync datastream to determine if said received serial packet sync datastream matches a preamble; and a holding register for holding said packet sync vector.* Bernath et al. discloses receiving a transport-layer frame ("packet sync datastream") and extracting the header information ("preamble") and comparing the header information (column 7 line 65-67 and column 8 line 1-24). Bernath et al. further discloses data is provided to the data register 104 (Holding register", column 8 line 48).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser receiving a transport-layer frame ("packet sync datastream") and extracting the header information ("preamble") and comparing the header information as taught by Bernath providing a efficient header analyzing mechanism.

With regard to claim 15, in combination Besser and Eng teaches the system recited in claim 12. *wherein said serial packet sync transmitter and said serial packet sync receiver are shift registers.* Bernath et al. discloses data is shifted into data register 104 ("packet sync receiver" , column 8 line 50-54) and shifted out an output data

register (" packet sync transmitter", column 9 line 5-8).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a CMTS system as taught by Besser implementing synchronization word ("sync vector") and a 13-bit packet identifier or PID ("non-unique bit sequence") as taught by Eng providing a network that is more synchronized.

8. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Eng (US patent 7,194,009) in view of Bernath et al. (US Patent 6,629,288).

With regard to claim 20, Eng discloses having a *system for receiving indication of an event, comprising: a serial packet sync receiver that receives a serial packet sync datastream on a single pin*, Eng discloses having a Full -Service cable modem comprised of a DPC1 downstream receiver 420 ("packet sync receiver") receiving RF signal 412 on a single link ... the RF signal is a MPEG-2 transport stream TS1 ("packet sync datastream" column 5 line 52-67).

a preamble comparator that compares said received serial packet sync datastream to determine if said received serial packet sync datastream matches a preamble and a holding register for holding a packet sync vector included in said serial packet sync datastream. Bernath et al. discloses receiving a transport-layer frame

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("packet sync datastream") and extracting the header information ("preamble") and comparing the header information (column 7 line 65-67 and column 8 line 1-24).

Bernath et al. further discloses data is provided to the data register 104 (Holding register", column 8 line 48).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a Full -Service cable modem comprised of a DPC1 downstream receiver 420 ("packet sync receiver") as taught by Eng receiving a transport-layer frame ("packet sync datastream") and extracting the header information ("preamble") and comparing the header information as taught by Bernath providing a efficient header analyzing mechanism.

Allowable Subject Matter

10. Claims 1-11 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DeWanda Samuel whose telephone number is (571) 270-1213. The examiner can normally be reached on Monday- Thursday 8:30-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art
Unit 2616

/DeWanda Samuel/
Examiner, Art Unit 2616
6/28/2008